# African birds in the *Histoire Naturelle des Oiseaux d'Afrique* (1796–1813) by François Levaillant

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The name of François Levaillant (1753–1828) is most often recalled in connection with his ornithological studies during his two expeditions in the South African interior in 1780–1784. He published popular accounts about the events of these journeys in 1790 and 1795. Levaillant's life-long love was the study of birds and he did not limit his research to the specimens with which he returned from his travels. Between 1796 and 1818 he wrote five multi-volume works dealing with birds constituting various taxonomic or geographic units. The African birds were described in his *Histoire Naturelle des Oiseaux d'Afrique* (Natural History of African birds), which appeared between 1796 and 1813 in 51 instalments divided into six volumes. The complicated bibliography of the various editions and translations was recently discussed in detail by Rookmaaker (1989).

Levaillant's book on African birds is very difficult to use for several reasons. First, he uses the French language throughout and identifies the species by French names only. This was not an 'omission', but a reasoned decision based on the supposed inadequacy of the names and diagnoses in the style of Linnaeus. Second, the 284 birds described in the book appear to be selected without any logic. We might expect, based on our knowledge of Levaillant's South African travels, that he would have intended to give details about the specimens collected there. This was not Levaillant's primary purpose at all. This is immediately clear from the book's title, which refers to 'African', not 'South African' birds. It is unfortunate, however, that he did not feel confined even by this rather large area. He also included quite a number of species which were stated to occur in various Asiatic, Pacific and American localities.

A third reason why Levaillant's work today is treated with much caution is that he included descriptions and plates of some 72 birds said to live in South Africa, but not, in fact, ever found there. In most cases, he wrote that he encountered these birds during his travels, that he brought specimens back to Europe, and, furthermore, he even described their habits in the field. Of course, when it was discovered that all these descriptions were based only on Levaillant's presumably fecund imagination, he lost much of his credence in the scientific world. It is especially this third reason which has limited the use of the valuable parts of the book.

Levaillant's *Histoire Naturelle des Oiseaux d'Afrique* is still important today, not only because of the light it sheds on the travels and the life of the author, but mainly because it included such a large number of birds (from various countries) which had never been described and depicted earlier. Levaillant provided them with French names only, but this was very quickly supplemented by a number of authors writing in the first half of the 19th century. Hence, it was calculated that at least 315 new scientific names were proposed, based only on the descriptions by Levaillant (Rookmaaker 1989). Quite a large number of these (more than 60) are names still in current use today. Of all these names, the work of Levaillant provides the types.

# The African birds

In his large six-volume work on African birds, Levaillant included only 19 African species which do not occur in southern Africa. This rather low number probably reflects the poor knowledge of the ornithology of East and West Africa in the first half of the 19th century. These 19 African birds are listed in Table 1. From this list it will be noted that Levaillant was particularly unfortunate in his descriptions of these birds. In no less than ten cases, he had seen an 'African' bird in a European collection, but he 'imagined' that he had seen the same bird during his South African travels. When one is faced only with this small selection of 19 species, one would easily loose confidence in Levaillant's power of observation. However, notwithstanding these erroneous localities, all (except one) are good species and seven of them still carry names today which

Table 1. List of West and East African birds described in Levaillant's Histoire Naturelle des Oiseaux d'Afrique (1796–1813). An asterisk (\*) denotes mention in the text below; a dagger (†) indicates Levaillant's incorrect locality of "South Africa"

Plate	date	French name	current name	locality
54	1800	Piapiac	*Ptilostomus afer (L., 1766)	Senegal†
69	1801	Gonolek	Laniarius barbarus (L., 1766)	Senegal <sup>†</sup>
73	1801	Pie-Grièche bleue	Leptopterus madagascarinus (L., 1766)	Madagascar†
80, 81	1801	Geoffroy	*Prionops plumata Shaw, 1809	Senegal
87	1801	Vert Doré	Lamprotornis caudatus Shaw, 1809	Senegal <sup>†</sup>
90	1801	Couigniop	Turdus nitens L., 1766	Senegal <sup>†</sup>
209	1806	Coucou edolio, var.	*Oxylophus levaillantii Swainson, 1829	'Africa'
215	1806	Coucou gris bronzé	*Ceuthmochares aereus (Vieillot, 1817)	Malymbe
218	1806	Voua tait-sou	Coua caerulea (L., 1766)	Madagascar†
226,227	1807	Vouroug-driou	Leptosomus discolor (Hermann, 1783)	Madagascar†
230–232	1807	Calao caronculé	Bucorvus abyssinicus (Boddaert, 1783)	Senegal, Abys- sinia
233	1807	Calao longibande	*Tockus fasciatus (Shaw, 1811)	Angola
236, 237	1807	Calao nasique	Tockus nasutus (L., 1766)	West Africa
238 245 f. 2	1807	Toc Hirondelle à	Tockus erythrorhynchus (Temminck, 1823	) Senegal
259	1808	front roux Coliou rayé à	Artefact	Senegal
		gorge noire	*Colius striatus nigricollis Vieillot, 1817	Angola, Malymbe
266	1808	Ramier founingo	Alectroenas madagascariensis (L., 1766)	Madagascar†
267	1808	Ramier hérisse	*Alectroenas nitidissima (Scopoli, 1786)	Mauritius†
284 285		Chevette perlée Pie-Grièche	*Glaucidium perlatum (Vieillot, 1817)	Senegal
		Blanchot	*Malaconotus blanchoti Stephens, 1826	Senegal
286	1810	Pie-Grièche Perrin	Telophorus viridis (Vieillot, 1817)	Malymbe
293 f. 1		Sucrier cossu	Nectarinia pulchella (L., 1766)	Senegal†

were proposed exclusively on the basis of Levaillant's evidence. In those cases, therefore, the specimens studied by Levaillant (and shown on his plates) are his type specimens.

It is not necessary to comment on each species separately. I give below additional notes on nine of the more interesting descriptions.

## Notes on Levaillant's birds

#### Ptilostomus afer (Linnaeus, 1766)

Levaillant incorrectly claimed that he saw this bird in South Africa. Probably he illustrated a specimen which he mentioned in the text, then available in the collection of Joan Raye (1737–1823). This Dutch businessman was a good friend of Levaillant. Raye had a large collection of natural history specimens including many birds, where Levaillant must have worked for some period. This collection was auctioned in 1827, at which time a catalogue was prepared. A large part was then bought by C.J. Temminck for the collection of the Natural History Museum in Leiden, Holland, where many of these birds (including several types) are still available. The specimen of plate 54 is not listed in Raye (1827) and it may have been given to Levaillant. It is not known if it is extant.

#### Prionops plumata (Shaw, 1809)

A specimen of this bird was brought to France from Senegal by René Geoffroy de Villeneuve in 1795. Maybe it was placed in the Paris Museum of Natural History. The species was named *Lanius plumatus* by Shaw, 1809, VII (2): 292; and *Lanius geoffroyi* by Wilkes, 1813, XII: 218. Both names were based only on Levaillant's description and plate.

## Oxylophus levaillantii (Swainson, 1829)

Although the species occurs in South Africa, Levaillant did not claim to have observed it there. He only knew of one mounted specimen in the collection of Jacob Temminck in Leiden. It came from "Africa", but a more exact locality was not available. The description was the basis of *Cuculus afer* Leach, 1814: 72, plate XXXI [preoccupied]; and *Coccyzus levaillantii* Swainson, 1829: 13. The type specimen was in Temminck's collection. It may be still in Leiden Museum, because Temminck's collection formed the nucleus of that museum when it was founded in 1820.

#### Ceuthmochares aereus (Vieillot, 1817)

Levaillant saw a specimen in the collection of Temminck which came from Malymbe (now Cabinda). It was also recorded in a catalogue of that collection by the son of the family, Coenraad Jacob Temminck (1807: 57) as "*le coucou gris bronzé*" from Angola. The current name proposed as *Cuculus aereus* by Vieillot (1817, VIII: 229) was based on Levaillant's text and plate.

## Tockus fasciatus (Shaw, 1811)

Levaillant acquired three specimens from Angola. One he kept himself, one he sold or gave to Temminck, and the third was sold to an unknown person. His description was the basis of *Buceros fasciatus* Shaw, 1811, VIII (1): 34; and also of *Buceros longibandus* Wilkes, 1808, III: 480. These names by John Wilkes were proposed in the *Encyclopaedia Londinensis* which appeared in England in 24 volumes between 1795 and 1829 (Rookmaaker 1989: 192–193). Although it is a seldom consulted publication, the names proposed should be considered available. Hence, it must be noted that *Buceros longibandus* Wilkes, 1808 predates *Buceros fasciatus* Shaw, 1811.

#### Colius striatus nigricollis Vieillot, 1817

The description of *Colius nigricollis* by Vieillot (1817, VII: 378) was based on Levaillant's text. He mentioned that he saw six specimens in a dealer's shop. He kept one himself, and gave one to Temminck in Holland. The latter specimen is mentioned by Temminck (1807: 97, 228) as the "*Coliou à gorge noire*" from Malymbe. It may still be in the Leiden Museum.

## Alectroenas nitidissima (Scopoli, 1786)

This is one of the two published plates of this extinct pigeon from Mauritius. Besides the two plates, only three specimens and a few drawings are now known to exist (Rothschild 1907: 163, Tuyn 1969). Levaillant must have drawn his plate from a specimen in Paris. It could be that the one now known in Edinburgh was once owned by his friend in the Paris Museum, Louis Dufresne, because Dufresne's collection was sold to Edinburgh in 1819 (Rookmaaker 1989: 268–269).

#### Glaucidium perlatum (Vieillot, 1817)

Levaillant recorded a specimen in the collection of Joan Raye in Amsterdam, Holland. It is also found in the sales catalogue (Raye 1827: 5, No. 31). It formed the basis of the current name, proposed as *Strix perlata* Vieillot, 1817, VII: 26.

#### Malaconotus blanchoti Stephens, 1826

Mees (1970: 67) revealed that Levaillant's type, from Joan Raye's collection, is still present in the Museum of Natural History in Leiden. Therefore, the names based on this description are available, i.e. *Lanius major* Wilkes, 1812, XII: 212; *Malaconotus blanchoti* Stephens, 1826, XIII (2): 161; and *Lanius icterus* Cuvier, 1836: 215. It will be noticed that the first name proposed by Wilkes predates the one currently in use.

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# **Request: red-billed hornbills in Africa**

The current wisdom about the common and widespread Red-billed Hornbill *Tockus* erythrorhynchus is that there are three distinct populations or subspecies in Africa. From Senegal to Tanzania is the nominate race with brown eyes and white facial plumage. From Zambia south to South Africa and east to Namibia is the race rufirostris with yellow eyes and grey facial plumage, while in western Namibia is the race damarensis with brown eyes and white facial plumage (very like nominate birds). All forms have pink skin around the eyes and as small patches on the throat, which become brighter during the breeding season.

On a visit to Singapore last year a pair of red-billed hornbills was seen in a cage at the Jurong Bird Park that had yellow eyes and black skin around the eyes. The origin of these birds was unknown but subsequent searches through the collections at the British Museum (Nat. Hist.) and the Zoologische Museum, Berlin, revealed specimens with black facial skin from two areas—Senegal and Gambia at the northwestern limit of the species' range and from around Lake Rukwa north to Lake Victoria in Tanzania. Few specimens had eye colour recorded but some were brown (Senegambia) and others yellow (Tanzania). Such differences in eye and facial skin colour are sufficient to separate species in some other *Tockus* species and re-billed hornbills may comprise several species rather than only one.

Anyone with close-up colour photos of red-billed hornbills from Africa is asked to examine them. Details of date, locality and colour of eyes, facial skin and plumage would be most welcome, together with a copy of the photo if possible. Records of specimens with black facial skin, so far unreported in the literature, would be especially welcome, together with any notes on behaviour, displays, calls and habitat.

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